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09/875,543	06/06/2001	James A. Aviani	CIS01-03(3705)	6900

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EXAMINER

PHAN, TAM T

ART UNIT PAPER NUMBER

2144

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/875,543

Applicant(s)

AVIANI ET AL.

Examiner

Tam (Jenny) Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Amendment received on 02/28/2005 has been entered. Claim 20 is currently amended. Claims 37-43 are newly added.
2. Claims 1-43 are presented for examination.

Priority

3. No priority claims have been made.
4. The effective filing date for the subject matter defined in the pending claims in this application is 06/06/2001.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brendel et al. (U.S. Patent Number 5,774,660), hereinafter referred to as Brendel, in view of Ilnicki et al. (U.S. Patent Number 6,751,677), hereinafter referred to as Ilnicki.
7. Regarding claim 1, Brendel disclosed a method in a data communication device [load balancer] for providing access to data from a data access device [server] to a client over a network (Figure 6), the method comprising the steps of: receiving a first request from a client to access data (Figure 6, Figure 11A sign 100); providing a second request to access data to the data access device in response to receiving the first request, the second request including connection establishment information that

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enables establishment of a communication connection between the data access device and the client (Figure 6, Figure 11A signs 102, 120); receiving a first response from the data access device (Figure 6, Figure 11A signs 102, 120); and providing connection information to the data access device in response to the receiving the first response, the connection information allows the data access device to establish the communication connection to the client based on the connection establishment information and provide a second response to the second request to the client (Figure 6, Figure 11A sign 104, column 9 lines 18-26, column 9 lines 52-64).

8. Brendel taught the invention substantially as claimed. However, Brendel did not expressly teach a step of providing a data transfer approval to the data access device in response to receiving the first response, the data transfer approval authorizing the data access device to establish the communication connection to the client based on the connection establishment information.

9. Brendel suggested exploration of art and/or provided a reason to modify the method for providing data access with additional features such as providing a data transfer approval security feature (column 20 lines 11-16, column 21 lines 11-18).

10. Ilnicki disclosed a method of providing a data transfer approval to the data access device in response to receiving the first response, the data transfer approval authorizing the data access device to establish the communication connection to the client based on the connection establishment information (Title, Abstract, Figure 5, column 3 lines 43-48, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

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11. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Brendel with the teachings of Ilnicki to include providing a data transfer approval security feature in order to offer a secure connection through a private networks behind a corporate firewall (Brendel, column 20 lines 17-26) since security measures are used in data access network system to control external access (Ilnicki, column 6 lines 25-33).

12. Regarding claim 2, Brendel disclosed a method wherein the step of receiving the first request includes (i) receiving the first request based on a request/response communications protocol (Figure 6, Figure 11A), and (ii) receiving a content identifier that identifies a requested content; and the step of providing the second request includes providing the content identifier to enable the data access device to access the requested content (column 6 line 63-column 7 line 13).

13. Regarding claim 3, Brendel and Ilnicki combined disclose a method wherein the step of receiving the first request comprises receiving a plurality of first requests to access data from the client; the step of providing the second request comprises providing a plurality of second requests in response to receiving the first requests, each second request including a request sequence number (Brendel, Figure 6, Figure 11A, column 10 lines 29-37, column 12 lines 7-24); and the step of providing the data transfer approval comprises providing a data transfer approval for each of a plurality of responses to the second requests in a sequence based on the request sequence numbers for the second requests (Brendel, Figure 6, Figure 11A, column 10 lines 29-37,

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column 12 lines 7-24; Ilnicki, Figure 5, column 3 lines 43-48, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

14. Regarding claim 4, Brendel and Ilnicki combined disclose a method wherein the step of providing the second request comprises providing a plurality of second requests to a plurality of data access devices (Brendel, Figure 6, Figure 11A, column 10 lines 29-37); the step of receiving the first response comprises receiving a plurality of first responses from a subset of the plurality of data access devices that received the second requests (Brendel, Figure 11A, column 12 lines 7-24); and the step of providing the data transfer approval comprises a step of selecting one of the subset of data access devices to provide the second response to the second request and providing the data transfer approval to the selected one of the data access devices (Brendel, Figure 6, Figure 11A, column 10 lines 29-37; Ilnicki, Figure 5, column 3 lines 43-48, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

15. Regarding claim 5, Brendel disclosed a method wherein each first response includes usage information for each data access device in the subset that indicates a level of usage for each data access device in the subset (Figure 6, column 6 lines 20-33, column 9 lines 30-40); and the step of selecting one of the subset comprises comparing the usage information for all of the data access devices in the subset to determine the selected one of the data access devices from the subset having a preferable level of usage (column 9 lines 30-40, column 11 lines 51-63).

16. Regarding claim 6, Brendel disclosed a method wherein the connection establishment information includes a current transmit window for the client that provides

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a window length for transmitting the second response to the client from the data access device, the window length provided by the client in the first request for use by the data access device when determining a quantity of data to provide in the second response (column 10 lines 20-37).

17. Regarding claim 7, Brendel disclosed a method wherein the data access device is a first data access device, and the connection establishment information includes a location identifier for a second data access device suitable for use if a requested content specified in the first request is unavailable from the first data access device (Figure 6, column 9 lines 18-40).

18. Regarding claim 8, Brendel and Ilnicki combined disclose a method wherein the connection establishment information is a first set of connection establishment information, and the data transfer approval includes a second set of connection establishment information, the data transfer approval authorizing the data access device to establish the communication connection to the client based on the first set and the second set of connection establishment information (Brendel, Figure 6, Figure 11A, column 10 lines 29-37; Ilnicki, Figure 5, column 3 lines 43-48, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

19. Regarding claim 9, Brendel disclosed a method, further comprising the steps of: receiving a first acknowledgment from the client of the second response provided to the client from the data access device over the communication connection (Figure 11A); and in response to receiving the first acknowledgment, forwarding a second acknowledgment to the data access device indicating that the data communications

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device received the first acknowledgment from the client (Figure 11A, column 12 lines 7-29).

20. Regarding claim 10, Brendel disclosed a method further comprising the steps of: receiving a first termination signal from the data access device in order to terminate a request session with the client; and in response to receiving the first termination signal, providing a second termination signal to the client that indicates a request to terminate the request session (Figures 11A-11B, column 12 line 59-column 13 lines 4).

21. Regarding claim 37, Brendel and Ilnicki combined disclose a method wherein the data communication device is a switch and wherein providing the data transfer approval to the data access device results in the data access device establishing the communication connection with the client to service the first request, the communication connection being a path other than through the data communication device (Brendel, Figure 6, Figure 11A, column 10 lines 29-37, column 20 lines 11-16; Ilnicki, Figure 5, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

22. Regarding claim 38, Brendel disclosed a method wherein providing the second request includes originating the connection establishment information to include an address of the client, the address being used by the data access device to establish the communication connection directly with the client to provide requested content from the data access device to the client, alleviating the data communication device from having to facilitate a transfer of data from the data access device to the client to service the first request (Figure 6, Figure 11A sign 104, column 9 lines 18-26, column 9 lines 52-64).

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23. Regarding claim 39, Brendel disclosed a method wherein the first request is one of multiple requests by the client to the data communication device, the method further comprising: providing a sequence number associated with the second request to enable the data access device to reply to the second request according to an order associated with when the second request was made relative to the multiple requests to the data communication device so that the client does not need to wait for fulfillment of a previous request before sending of the first request (Figure 6, Figure 11A, column 10 lines 29-37, column 12 lines 7-24).

24. Regarding claim 40, Brendel disclosed a method further comprising: performing a bidding process with multiple data access devices, receiving responses from the multiple data access devices including load information and estimates of a cost of servicing the first request, and based on the load information, selecting the data access device of multiple data access devices to service the first request by sending the second request to the data access device (Figure 6, Figure 11A, column 9 lines 30-40, column 11 lines 51-63, column 12 lines 25-37).

25. Regarding claims 11-20, the data communication device corresponds directly to the method of claims 1-10, and thus these claims are rejected using the same rationale.

26. Regarding claims 21, the computer program product corresponds directly to the method of claim 1 and the data communication device of claim 11, and thus is rejected using the same rationale.

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27. Regarding claims 22, the data communication device corresponds directly to the method of claim 1, the data communication device of claim 11, and the computer program product of claim 21, and thus is rejected using the same rationale.

28. Regarding claim 23, Brendel and Ilnicki combined disclose a method in a data access device [server] for providing data over a network to a client (Brendel, Figure 6; Ilnicki, Figure 5), the method comprising the steps of: receiving a second request to access data from a data communication device, the second request based on a first request to access data received by the data communications device from the client and the second request including connection establishment information that enables establishment of a communications connection between the data access device and the client (Brendel, Figure 6, Figure 11A signs 102, 120); providing a first response to the data communications device (Brendel, Figure 6, Figure 11A signs 102, 120); and receiving a data transfer approval from the data communications device in response to providing the first response, the data transfer approval authorizing the data access device to establish the communication connection to the client and to provide a second response to the second request to the client based on the connection establishment information (Brendel, Figure 6, Figure 11A sign 104, column 9 lines 18-26, column 9 lines 52-64; Ilnicki, Title, Abstract, Figure 5, column 3 lines 43-48, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

29. Regarding claim 24, Brendel disclosed a method wherein the step of receiving the second request includes receiving a content identifier that identifies a requested

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content and that enables the data access device to access the requested content (column 6 line 63-column 7 line 13).

30. Regarding claim 25, Brendel disclosed a method wherein the connection establishment information includes a current transmit window for the client that provides a window length for transmitting the second response to the client, the window length provided by the client in the first request for use by the data access device when determining a quantity of data to provide in the second response (column 10 lines 20-37).

31. Regarding claim 26, Brendel disclosed a method wherein the data access device is a first data access device, and the connection establishment information includes a location identifier for a second data access device suitable for use if a requested content specified in the first request is unavailable from the first data access device (Figure 6, column 9 lines 18-40).

32. Regarding claim 27, Brendel and Ilnicki combined disclose a method wherein the connection establishment information is a first set of connection establishment information, and the data transfer approval includes a second set of connection establishment information, the data transfer approval authorizing the data access device to establish the communication connection to the client based on the first set and the second set of connection establishment information (Brendel, Figure 6, Figure 11A, column 10 lines 29-37; Ilnicki, Figure 5, column 3 lines 43-48, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

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33. Regarding claim 28, Brendel disclosed a method further comprising the steps of establishing the communication connection to the client and providing the second response to the second request to the client over the communication connection (Figure 6, Figure 11A sign 104, column 9 lines 18-26, column 9 lines 52-64).

34. Regarding claim 41, Brendel and Ilnicki combined disclose a method wherein the data communication device is a switch and wherein receiving the data transfer approval results in the data access device establishing the communication connection with the client to service the first request, the communication connection from the data access device to the client being a path other than through the data communication device (Brendel, Figure 6, Figure 11A, column 10 lines 29-37, column 20 lines 11-16; Ilnicki, Figure 5, column 4 lines 3-7, lines 21-30, column 5 lines 44-56).

35. Regarding claim 42, Brendel disclosed a method wherein receiving the second request includes receiving an address of the client, the address being used by the data access device to establish the communication connection directly with the client to provide requested content from the data access device to the client, alleviating the data communication device from having to facilitate a transfer of data from the data access device to the client to service the first request (Figure 6, Figure 11A, column 10 lines 29-37, column 20 lines 11-16).

36. Regarding claim 43, Brendel disclosed a method wherein the first request is one of multiple requests by the client to the data communication device, the method further comprising: receiving a sequence number associated with the second request to enable the data access device to reply to the second request according to an order associated

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with when the second request was made relative to the multiple requests to the data communication device so that the client does not need to wait for fulfillment of a previous request before sending of the first request Figure 6, Figure 11A, column 10 lines 29-37, column 12 lines 7-24.

37. Regarding claims 29-34, the data access device corresponds directly to the method of claims 23-28, and thus these claims are rejected using the same rationale.

38. Regarding claims 35, the computer program product corresponds directly to the method of claim 23 and the data access device of claim 29, and thus is rejected using the same rationale.

39. Regarding claims 36, the data access device corresponds directly to the method of claim 23, the data access device of claim 29, and the computer program product of claim 35, and thus is rejected using the same rationale.

40. Since all the limitations of the claimed invention were disclosed by the combination of Brendel and Ilnicki, claims 1-43 are rejected.

Response to Arguments

41. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

42. As the rejection reads, Examiner asserts that the combination of these teachings render the claimed invention obvious.

Conclusion

43. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Tabuki (U.S. Patent Number 5,841,970) titled "Authentication method for networks" disclosed an authentication method for use by application servers on networks to authenticate users of the applications is provided. In the method, an application server receives authentication data from the user. The application server determines the type of authentication data received from the user and determines a suitable verification server. The received authentication data is sent together with the identification data of the user to a verification server. The verification server verifies whether the sent authentication data is the authentication data of the user designated by the sent identification data. The verification server notifies the application server of the verification result and, on the basis of the returned verification result, the application server authenticates the user.

b. Hurvig (U.S. Patent Number 5,867,652) titled "Method and apparatus for supporting multiple outstanding network requests on a single connection" disclosed a new apparatus and method for coordinating the operation of a client and server within a network. A client submits a sequence of up to N independent requests to a server on a connection. Where SMIN is a sequence value for an oldest outstanding request for a client/server connection, the client will not issue a request having a sequence value equal to "N+SMIN" until receiving a response packet for a request packet having a sequence value equal to SMIN. The server transmits response packets for the outstanding requests in the order in which the

requested operations are completed regardless of the sequence values for the requests.

c. McGarvey (U.S. Patent Number 6,643,774) titled "Authentication method to enable servers using public key authentication to obtain user-delegated tickets" disclosed A method, system, and computer-readable code for delegating authority in a public key authentication environment from a client to a server machine or process, in order that the server machine or process can then securely access resources and securely perform tasks on behalf of the client. The authority is delegated by obtaining tickets (or other equivalent representation of user credentials) from a private key system, such as the Kerberos system, where the tickets identify a user's access rights or privileges. The present invention provides several alternative techniques with which this delegation model can be implemented. In these techniques, the client does not directly access the private key system.

44. Refer to the enclosed PTO-892 for details and complete listing of other pertinent prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (571) 272-3930. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

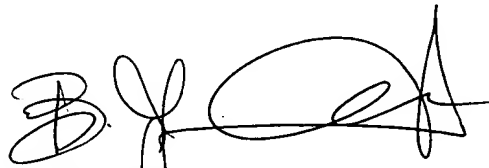
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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June 15, 2005



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